

TIMESHEET REPORT

CUSTOMER NAME MAINTENANCE SOLUTIONS		SITE CONTACT (OPERATOR RESPONSIBLE FOR F-GAS COMPLIANCE) ROB NORMAN - ENGINEERING MANAGER			SHEET NUMBER 08481
SITE NAME & ADDRESS (PLANT OWNER F-GAS) HEMEL ONE, BOUNDARY WAY, HEMEL HEMPSTEAD, HERTFORDSHIRE. HP2 7YU		ENGINEER STEVE ORLANDO	MATE CHARLIE ORLANDO		CLIENT ASSET NUMBER 00928
REASON FOR VISIT QUOTED REPAIRS	MANUFACTURER DELONGHI	MODEL	FE/SRAT/B 2404		
JOB NUMBER J/N:2460. O/N:PO252544833	SERIAL No. A898202034/A	YEAR INSTALLED	01/01/2000		
PLANT LOCATION ROOF CHILLER PLANT AREA	REFRIGERANT TYPE R407C	TOTAL REF. CHARGE	200.0 KG		
PLANT REFERENCE BASE BUILD CHILLER 2 (928)	REFRIGERANT GWP 1774	IND. REF SYS. CHARGE	50+50+50+50 KG		
LOADS SERVED BASE BUILD COMFORT COOLING LOADS	EQUIV. TONNES CO2E 354.8	FGAS LEAK CHECK FREQ.	HALF YEARLY		

WORK CARRIED OUT:

ATTENDED SITE AND DECOMMISSIONED AND REMOVED THE OLD CMV CONTROLLER WITH ASSOCIATED SENSORS AND TRANSDUCERS.

INSTALLED NEW CAREL MASTER / SLAVE CONTROLLERS, KEYPAD, TEMPERATURE SENSORS AND PRESSURE TRANSDUCERS. ADDED ADDITIONAL RELAYS AND WIRED IN SAME. REFER TO ORIGINAL WIRING DIAGRAM FOR WIRING, USED THE SAME WIRE NUMBERING TO MAKE IT EASIER TO REFERENCE.

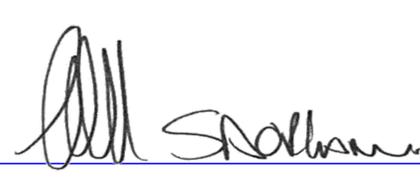
ALTERED GENERIC SOFTWARE TO ADD DISCHARGE TEMPERATURE SENSING AND ALARMING, GENERATOR LOAD LIMIT AND RUNNING LOAD LIMIT SETPOINTS. SIMULATED SOFTWARE ALL OK. UPLOADED AND COMMISSIONED CONTROLS ALL OK.

DURING COMMISSIONING FOUND CONDENSER FAN 7 BEARING COLLAPSE AND CONDENSER FAN 14 WITH SHUNTED WINGING'S. REMOVED BOTH FANS FROM CIRCUIT. DURING COMMISSIONING FOUND EXPANSION VALVE ON SYSTEM 1 NOT REACTING CORRECTLY, RECOMMEND REPLACING ORIFICE CAGE. CHILLED WATER FLOW SWITCH FAILS TO STOP CHILLER, REPLACEMENT CHILLED WATER FLOW SWITCH REQUIRED.

LEFT CHILLER DISABLED AWAITING FLOW SWITCH WORKS.

ENGINEERS TIME ON SITE & TRAVEL									MATERIALS USED	
DAY	DATE	START	FINISH	TRAVEL	TOTAL	COMPLETE Y/N	MILEAGE	No. ENG	QUANTITY	DESCRIPTION
MON	24/09/2019			1	12	N	30	1	2	6AMP D RATED MCB
TUES	25/09/2019			1	12	Y	30	1	2	CAREL PCO5+ LARGE CONTROLLERS & PGD01 DISPLAY
WED	18/09/2019			1	12	N	30	1	8	PRESSURE TRANSDUCERS AND LEADS
THUR	20/09/2019			1	12	N	30	1	7	TEMPERATURE SENSORS.
FRI	21/09/2019			1	12	N	30	1	5	24VAC RELAYS
SAT									1	WIRING & TERMINAL CONSUMABLES
SUN										

CUSTOMER TO SIGN FOR ENGINEERS TIME ON SITE

ENGINEER SIGNATURE:  _____

CUSTOMERS SIGNATURE: _____

F-GAS QUALIFICATION: C&G 2079 PART 1

CUSTOMER NAME: ROB NORMAN

SIGNATURE DATE: 25/09/2019

CUSTOMERS JOB TITLE: ENGINEERING MANAGER

ADDITIONAL WORKS RECOMMENDED / REQUIRED:

- * 2 OFF NEW CONDENSER FANS REQUIRED ON THIS CHILLER AND AT LEAST 1 OTHER REQUIRED ON CHILLER 1
- * 1 OFF NEW ORIFICE CAGE FOR EXPANSION VALVE
- * 1 OFF CHILLED WATER FLOW SWITCH

ISO9001:2008. CUSTOMER SATISFACTION: **1 = UNSATISFIED 2 = BELOW AVERAGE 3 = MET EXPECTATION 4 = ABOVE AVERAGE 5 = EXCELLENT**

CUSTOMER COMMENTS ABOUT PERFORMANCE ON THIS JOB / CONTRACT:

F-GAS & BOTTLE LOG

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MANUFACTURER DELONGHI		MODEL FE/SRAT/B 2404	SERIAL A898202034/A	DATE INSTALLED 01/01/2000	PLANT REFERENCE BASE BUILD CHILLER 2 (928)			
REFRIG TYPE R407C	TOT. REFRIG CHR.G. 200.0 KG	INDIVIDUAL SYS. REF. CHARGE 50+50+50+50 KG		REFRIG GWP 1774	EQUIV. TONNES CO2e 354.8	F-GAS LEAK CHECK FREQ. HALF YEARLY	CLG LOAD SERVED BASE BUILD COMFORT COOLING LOADS	

VIRGIN REFRIGERANT BOTTLE LOG (KG)

DATE RECEIVED	DELIVERY NOTE NUMBER	BOTTLE NUMBER	SUPPLIER	REFRIGERANT	BOTTLE TYPE	GROSS WEIGHT	TARE WEIGHT	NET WEIGHT	NET USED	DATE RETURNED	RETURNS NOTE NUMBER

RECOVERY BOTTLE LOG (KG)

DATE RECEIVED	DELIVERY NOTE NUMBER	BOTTLE NUMBER	SUPPLIER	REFRIGERANT	RECOVERY TYPE	TARE WEIGHT	RECOVERED NET	RECOVERED USED	GROSS WEIGHT	DATE RETURNED	WASTE TRANSFER NOTE

F-GAS REFRIGERATION LOG RECORD

REFRIGERANT ADDITIONS

DATE	ENGINEER	AMOUNT ADDED (KG)	REASON FOR ADDITION

REFRIGERANT REMOVALS

DATE	ENGINEER	AMOUNT REMOVED (KG)	REASON FOR REMOVAL

REFRIGERANT LEAK TEST

DATE	ENGINEER	TEST RESULT	FOLLOW UP ACTIONS REQUIRED
25/09/2019	STEVE ORLANDO	PASS	ALL SYS - CARRIED OUT ELECTRONIC REFRIGERANT LEAK DETECTION TO ALL DISTURBED FITTINGS & PIPEWORK

FOLLOW UP ACTIONS

DATE	ENGINEER	RELATED TO TEST ON	ACTIONS TAKEN

TESTING AUTOMATIC LEAK DETECTION SYSTEM (IF FITTED)

DATE	ENGINEER	TEST RESULT	COMMENTS

LOG - SITE PICTURES

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SITE PICTURE LOG

